

ENDOLUMINAL STENT

Abstract: An endoluminal stent for placement in a body lumen, particularly a human coronary artery. The stent consists of a plurality of expansion rings aligned about a common axis, the expansion rings being comprised of a plurality of substantially ovaloid support units interconnected by rotatable struts, the expansion rings interconnected by a plurality of substantially sinusoidal struts. The stent can be expanded to a great degree due both to the substantially ovaloid support units plastically deforming to a substantially circular shape and the interconnecting struts rotating from an alignment substantially parallel to the stent's longitudinal axis to an alignment substantially orthogonal to the stent's longitudinal axis during stent placement. The stent may be successfully placed within a tortuous body lumen due to the stent's sinusoidal support ring interconnect struts. The design minimizes the stent-body lumen contact area to promote rapid endothelialization and minimization of thrombogenicity, reducing the chance of restenosis.